



Application No	10/801,416
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Applicants	Mioduski et al
Examiner	Gibson, Roy Dean
Title	Hyperthermia Treatment Systems and Methods
For	Thermosurgery Technologies Inc.
Docket	62815.00002

Filing of amended claims;

WHAT IS CLAIMED IS:

Claim 1 (currently amended) A device for delivering method of operating a
hyperthermia treatment system, comprising: measuring and controlling
a precise temperature generated by a controlled low frequency field
that is within an allowable preferred range of operation for the system;
and
determining whether to continue operation of the system based on a
parameter related to the measured temperature; and
management of the measured temperature through the utilization of a
feedback loop that consists of an applicator with sensors, a processor
and proprietary software.
a) The feedback loop limits overheating, not through the utilization of
other coolants or liquid cooling devices.
b) The applicator houses the sensors creating a localized treatment.
The fixed location of the sensors within a single applicator results in
the sensors being placed either internally or externally to the region not
internally and externally.

- Claim 2 (currently amended) The method of claim 1 wherein the parameter comprises the measured temperature. The parameter is a timed function.
- Claim 3 (currently amended) The method of claim 1 wherein the parameter comprises a temperature difference between the measured temperature and another measured temperature. Temperature control is accomplished by a complex control system using continuous feedback without the utilization of any additional cooling device, liquid or coolant.
- Claim 4 (currently amended) The method claim 1 wherein the parameter comprises a rate of change of temperature. Continuous feedback loop controls temperature spikes within a controlled spec.
- Claim 5 (currently amended) A medical device for performing hyperthermia treatment, comprising: a heat source for providing localized heat for the hyperthermia treatment;
a controlled temperature source generated from a battery driven PC controlled device;
a temperature sensor that is part of a feedback loop for continuously measuring monitoring temperature ~~from the providing of heat~~; and
a processor that determines whether to continue the hyperthermia treatment based on a parameter related to-a the measured temperature that is within an allowable range of operation for the

device. The temperature is maintained utilizing the feedback loop which controls the low frequency field output without utilization of any other cooling mechanisms or liquid coolants.

Claim 6 (currently amended) The device of claim 5 wherein the parameter comprises the measured temperature. Preferred temperature profile is controlled by a microprocessor driven temperature control feedback system based on specific algorithms.

Claim 7 (currently amended) The device of claim 5 wherein the parameter comprises ~~a temperature difference between the measured temperature and another measured temperature.~~ the monitoring of temperature relative to the temperature profile and the adjustments of the low frequency field output to meet the profile.

Claim 8 (withdrawn) The device claim 5 wherein the parameter comprises a rate of change of temperature.

Claim 9 (currently amended) A method of operating a hyperthermia treatment system, comprising: performing a plurality of tests to determine whether the hyperthermia treatment system is operating properly; and terminating operation of the hyperthermia treatment system in response to failure of any test of a predefined set of the tests and preventing further operation of the hyperthermia treatment system until the hyperthermia treatment system is reset for further operation at a specified facility. Internal control systems provide safety precautions to

prevent over temperature and / or electrical shock and / or status
change during operation, including software record of failure event.

- Claim 10 (withdrawn) The method of claim 9 wherein the specified facility comprises a manufacturer of the hyperthermia treatment system.
- Claim 11 (currently amended) The method of claim 9 wherein the tests are for verifying proper operation inside and outside of a housing for the hyperthermia treatment system. Record of failure event recorded in software.
- Claim 12 (currently amended) The method of claim 11 wherein the tests for verifying proper operation inside the housing comprise the predefined set of the tests. Record of failure event recorded in software.
- Claim 13 (withdrawn) The method of claim 11 further including terminating operation of the hyperthermia treatment system in response to failure of any test of a predefined second set of the tests and permitting further operation of the hyperthermia treatment system after a local reset is preformed.
- Claim 14 (withdrawn) The method of claim 13 wherein the tests for verifying proper operation outside of the housing comprise the predefined second set of the tests.
- Claim 15 (withdrawn) The method of claim 9 wherein the reset may be performed only after required repairs are completed.

Claim 16 (withdrawn) The method of claim 9 wherein the reset includes

providing a special code to they hyperthermia treatment system.

Claim 17 (withdrawn) A method of operating a hyperthermia treatment system,

comprising: determining when the hyperthermia treatment system has provided a desired temperature for treatment;

evaluating one or more criteria pertaining to a thermal dose being

delivered; and terminating a treatment when evaluation of one or more of the criteria indicates under treatment of a patient.

Claim 18 (withdrawn) A medical device for performing hyperthermia treatment,

comprising:

a heat source for providing heat for the hyperthermia treatment;

a temperature sensor for measuring temperature from the providing of

heat; and a processor that determines when the hyperthermia

treatment system has provided a desired temperature for treatment,

evaluates one or more criteria pertaining to a thermal dose being

delivered, and terminates a treatment when evaluation of one or more

of the criteria indicates under treatment of a patient.

Claim 19 (withdrawn) A method of operating a hyperthermia treatment system,

comprising: monitoring parameters relating to operation of the

hyperthermia treatment system; and

playing over the system a predefined announcement when a

predefined operational characteristic of the system has been detected.

- Claim 20 (withdrawn) A medical device for performing hyperthermia treatment, comprising:
- a heat source from providing heat for the hyperthermia treatment;
 - a temperature sensor for measuring temperature from the providing of heat; and a processor that monitors parameters relating to operation of the hyperthermia treatment system and plays over the system a predefined announcement when a predefined operational characteristic of the system has been detected.
- Claim 21 (withdrawn) The device of claim 5 wherein the system is used to treat at least one of an abnormality, ailment, condition, disease, disorder and wound found on at least one of a patient's skin and tissue.
- Claim 22 (withdrawn) The device of claim 21 wherein the at least one of an abnormality, ailment, condition, disease, disorder and wound include at least one of Actinic Keratosis, Angionoma, Acrochordon, Atypical Mycobacteria, Chromoblasomycosis, Cystic Acne, Clavus, Cutaneous Leishmaniasis, Dermatophytosis, Epidermoid Cysts, Fibroma, Hydrocystoma, Keloids, Molluscum Contagiosum, Mycetoma, Seborrheic Keratosis, Sporotrichosis, Syringoma and Warts.